

REMARKS

Favorable reconsideration of this Application as presently amended and in light of the following discussion is respectfully requested.

After entry of the foregoing Amendment, Claims 13, 14, 16, 17, 19, 20 and 22-25 are pending in the present Application. Claims 13, 16, 19 and 22 have been amended, non-cosmetic changes find support at least at pages 7-12 of the specification. No new matter has been added.

By way of summary, the Official Action presents the following issues: Claims 13-35 stand rejected under 35 U.S.C. § 102 as being anticipated by Fuller et al. (U.S. Patent No. 6,833,865, hereinafter Fuller).

REJECTION UNDER 35 U.S.C. § 102

The outstanding Official Action has rejected Claims 13, 14, 16, 17, 19, 20 and 22-25 under 35 U.S.C. § 102 as being anticipated by Fuller. The Official Action contends that Fuller discloses all of the Applicants' claimed features. Applicants respectfully traverse the rejection.

Applicants' Claim 13 recites, *inter alia*, a camera-recorder apparatus, including:

. . . a metadata extraction unit operable to derive image property data from said image feature vector data substantially in real time at said capture of said video images, said image property data being associated with said respective images, and including sub shot segmentation data derived from said color distribution data. . .

Fuller describes a metadata engine for use in a digital capture device. As shown in Fig. 1, a digital capture system (100) includes a visual and audio capture subsystem (200) and a content-based metadata generation engine (300). A collateral data gathering block (400), a data formatting unit (500), including optimal time-code marking (600) and data output and/or storage (700) are also provided. In operation, content may be accessed from a memory by the content-based analysis engine (300) for performing metadata extraction. The content analysis

and metadata extraction may be affected by device state event triggers coming from block (402), which automatically define video clips in response to the “record” function of the device.¹

Conversely, in an exemplary embodiment of the Applicants’ advancements, a camera recorder apparatus includes an image capture device operable to capture a plurality of video images. A storage medium functions to store the captured video images for subsequent retrieval. A feature extraction unit is operable to derive image feature vector data from said image content of at least one of the video images substantially in real time at the capture of the video images, the image feature vector data is associated with respective images and includes color distribution data. A metadata extraction unit derives image property data from the image feature vector data in real time upon capture of the video images. The image property data is associated with respective images and includes **sub shot segmentation data derived from the color distribution data.**

As can be appreciated, the sub shot segmentation data of the Applicants’ claimed advancement is derived from image feature vectors associated with respective images which include color distribution data. This vector structure allows scene changes within a series of consecutive images to be flagged so as to assist in the editing process. Likewise, local changes of scenes, such as the entry of an actor into a scene, can be detected and flagged.

Claim 13 has been amended to clarify that the color distribution data of the image factors is associated with respective images. The portion of the Fuller reference cited in the Official Action corresponds to the background of the invention section which provides a cursory description of metadata captured from digital signals. Furthermore, Applicants note that the discussion of Applicants Claim 13 found at page 3 of the Official Action omits claim

¹ Fuller at column 5, lines 15-50.

terminology added by way of amendment on December 21, 2006. Specifically, there is no discussion of the derivation of sub shot segmentation data from color distribution data.

Indeed, Fuller does not disclose or suggest deriving sub-shot segmentation data from color distribution data as presently recited in amended Claim 13 or any claims depending therefrom.²

Applicants' Claim 16 recites that image property data includes activity measure data derived from a variance of color distribution data, which is indicative of a change of the image content or the audio content between video images.

While the Official Action has cited Fuller as describing a mathematical description of color in an image, there is no description or suggestion of including an activity measure which is derived from a variance of color distribution data and indicative of a change of the image content or the audio content between video images as recited in Applicants amended Claim 16, or any claim depending therefrom.

Applicants' amended Claim 19 recites a more detailed advancement, in which image property data includes representative key frame derived from color distribution data indicative of a predominant overall content of video images.

Fuller merely discloses identifying a key frame to use as metadata to mark the beginning or end of a clip (column 8, lines 62-65). While the Official Action has cited various aspects of the Fuller reference as corresponding to representative key frames, Applicants note that the identified key frames of the reference are not derived from color distribution data nor do they indicate a predominate overall content of video images corresponding to color distribution data as recited in Applicants' amended Claim 19, or any claim depending therefrom.

² See Application at page 12 lines 8-17.

Claim 22 recites a more detailed aspect of the Applicants' advancements, in which image property data includes interview detection data indicative of an interview sequence of the video images and the interview detection data including identified facial images and identified speech as amended.

The Official Action has cited speaker identification and face recognition in support of the rejection of Claim 22 but has not identified any disclosure or suggestion that the co-occurrence of a face and audio identified as speech which is flagged as potentially representing an interview in accordance with Applicants' Claim 22. The video images of the interview sequence include identified facial images and audio signals that are associated with the video images and identified as speech of the interview sequence. As Fuller merely discloses speaker identification and face identification, Fuller does not disclose, or suggest, interview detection data, as presently recited in Applicants' amended Claim 22, or any claim depending therefrom.

Accordingly, Applicants respectfully request that the rejection of Claims 13, 14, 16, 17, 19, 20 and 22-25 under 35 §U.S.C. be withdrawn.

CONCLUSION

Consequently, in view of the foregoing amendment and remarks, it is respectfully submitted that the present Application, including Claims 13, 14, 16, 17, 19, 20 and 22-25, is patently distinguished over the prior art, in condition for allowance, and such action is respectfully requested at an early date.

Respectfully submitted,

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